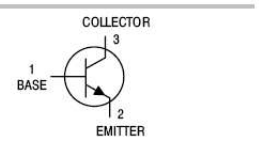
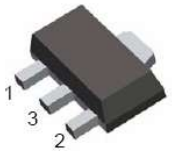
Silicon NPN triple diffusion planer type 2SD2413

FEATURES

- High collector to base voltage V_{CBO}.
- High collector to emitter voltage V_{CEO}.
- Large collector power dissipation P_C.
- Low collector to emitter saturation voltage $V_{CE(sat)}$.

Lead-free





SOT-89

ORDERING INFORMATION

Type No.	Marking	Package Code
2SD2413	1S	SOT-89

MAXIMUM RATING @ Ta=25℃ unless otherwise specified

Symbol	**Parameter**	**Value**	**Unit**
V_{CBO}	Collector-Base Voltage	400	V
V_{CEO}	Collector-Emitter Voltage	400	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current -Continuous	0.1 0.2	A(DC) A(Pulse)[*1]
P_C	Collector power dissipation	1	W
T_j	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-55 to +150	℃

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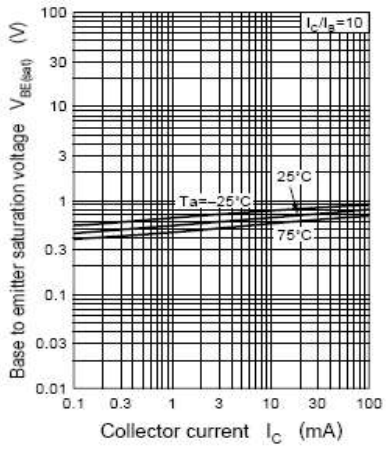
ELECTRICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

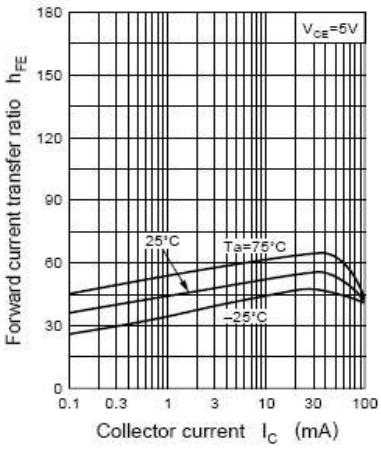
Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=100μA, I_E=0	400			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=500uA ,I_B=0	400			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=100μA, I_C=0	5			V
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C/I_B=50mA/5mA			1.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C/I_B=50mA/5mA			1.5	V
DC current transfer ratio	h_{FE}	V_{CE}=5V, I_C=30mA	30			
Transition frequency	f_T	V_{CE}=30V,I_E=-20mA, f=200MHz		40		MHz
Output Capacitance	C_{ob}	V_{CB}=30V, f=1MHz ,I_E=0			7	pF

YPICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

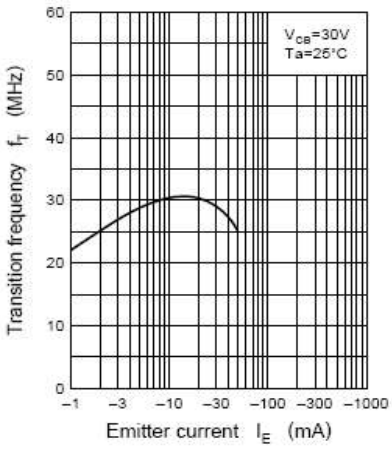
$V_{BE(sat)}$ — I_C



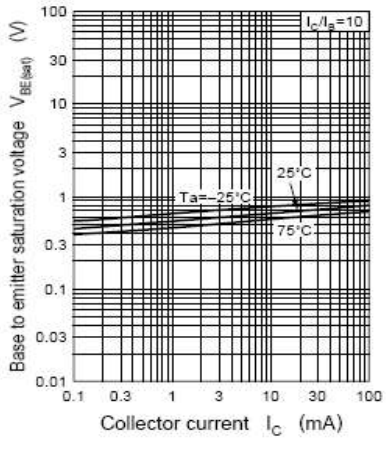
h_{FE} — I_C



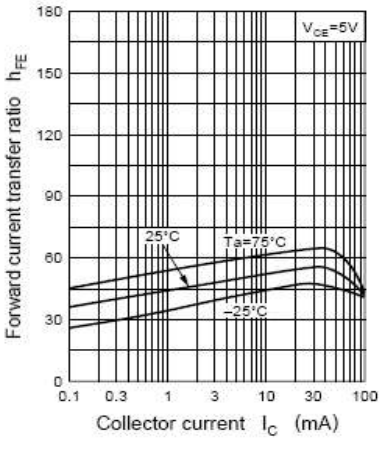
f_T — I_E



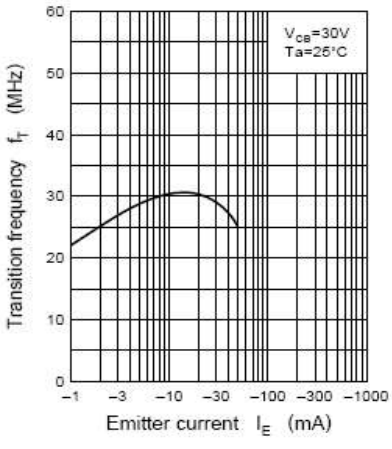
$V_{BE(sat)}$ — I_C



h_{FE} — I_C



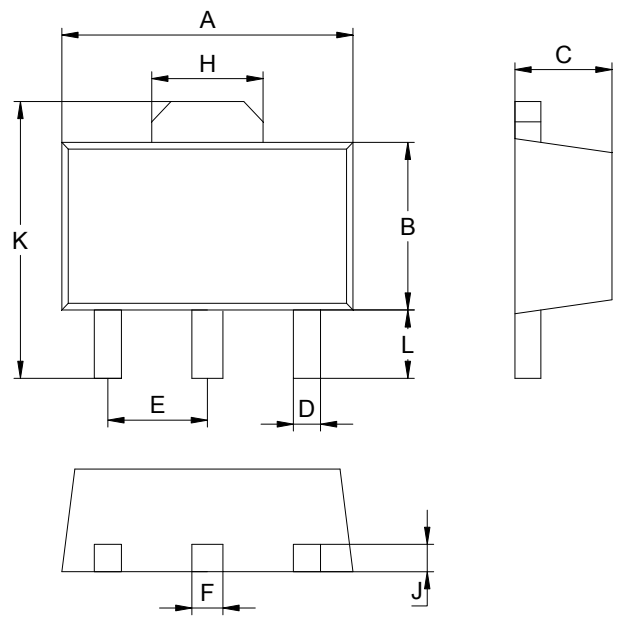
f_T — I_E



Silicon NPN triple diffusion planer type 2SD2413

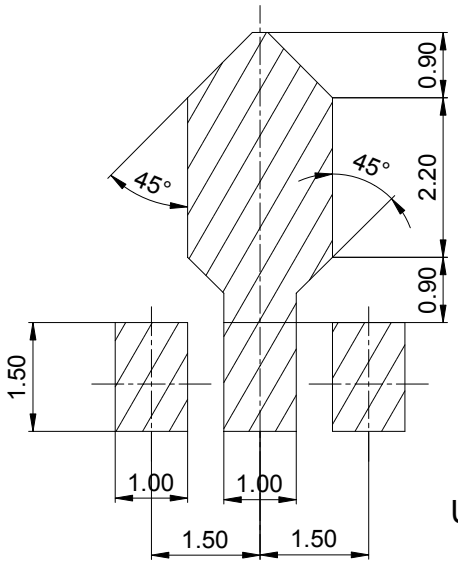
PACKAGE OUTLINE

Plastic surface mounted package SOT-89



SOT-89		
Dim	Min	Max
A	4.30	4.70
B	2.25	2.65
C	1.50 Typical	
D	0.40 Typical	
E	1.40	1.60
F	0.48 Typical	
H	1.60	1.80
J	0.40 Typical	
L	0.90	1.10
K	3.95	4.35
All Dimensions in mm		

SOLDERING FOOTPRINT



Unit:mm

PACKAGE INFORMATIO

Device	Package	Shipping
2SD2413	SOT-89	1000/Tape&Reel